

WHAT IS CLAIMED IS:

- Sub A2*
1. A computer system for running one or more software applications, wherein the software applications are suitable for generating a video output, comprising:
5 a host operating system suitable for displaying a graphical user interface; multiple emulated operating systems being emulated by one or more emulator programs running on the host operating system; and wherein the host operating system is able to display for a user a reduced-size representation of the video output of the emulated operating systems that are being operated in a background mode.
- 10 2. The computer system of claim 1, further comprising one or more virtual video memory components suitable for storing the video output of the emulated operating systems.
- 15 3. The computer system of claim 2, wherein one or more of the video memory components are VRAM memory.
- 20 4. The computer system of claim 1, wherein the emulated operating systems operating in a background mode are active; and wherein the thumbnail images for the emulated operating systems are generated from the video information stored on the video memory components at predetermined intervals while the software applications are active.
- 25 5. The computer system of claim 4, wherein the predetermined intervals are such that the thumbnail images are real-time representations of the video output from the active software applications.

6. The computer system of claim 1,

wherein the graphical user interface is a windowing environment suitable for displaying one or more windows; and

5 wherein the portion of the graphical user interface comprising the reduced-size representation is a window.

7. The computer system of claim 1, wherein the reduced-size representations are created using a bilinear sampling technique.

10 8. A computer system for running one or more software applications, wherein the software applications are suitable for generating a video output, comprising:

a host operating system suitable for displaying a graphical user interface;

multiple emulated virtual machines being emulated by one or more emulator programs running on the host operating system; and

15 wherein the host operating system is able to display for a user a reduced-size representation of the video output of each virtual machine being operated in a background mode.

20 9. The computer system of claim 8, wherein the reduced-size representations are representations of the video outputs of the virtual machines that are being operated in the background mode.

10. The computer system of claim 9,

further comprising a virtual video memory associated with each of the virtual machines; and

25 wherein the reduced-size representations are generated from the video information stored in the virtual video memory associated with each virtual machine.

11. A method for displaying a reduced-size image of multiple emulated computer systems, comprising the steps of:

suspending one or more of the multiple emulated computer systems by saving to memory in the host computer system the image of the emulated computer system;

5 reading in at the emulator program from memory in the host computer system the image of the suspended emulated computer system;

interpreting in the emulator program the contents of the saved image of the suspended emulated computer system;

displaying a reduced-size representation of the suspended emulated computer
10 system.

12. A method for displaying a reduced-size image of multiple emulated computer systems, comprising the steps of:

reading in at the emulator program from memory in the host computer system the image of the emulated computer system;

5 interpreting in the emulator program the contents of the image of the emulated computer system;

displaying a reduced-size representation of the emulated computer system;

periodically updating the reduced-size representation of the emulated computer system.